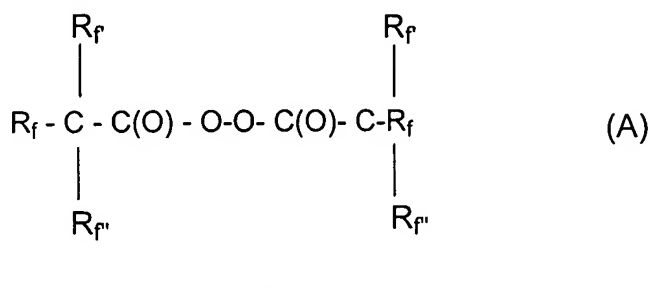


AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Cancel)

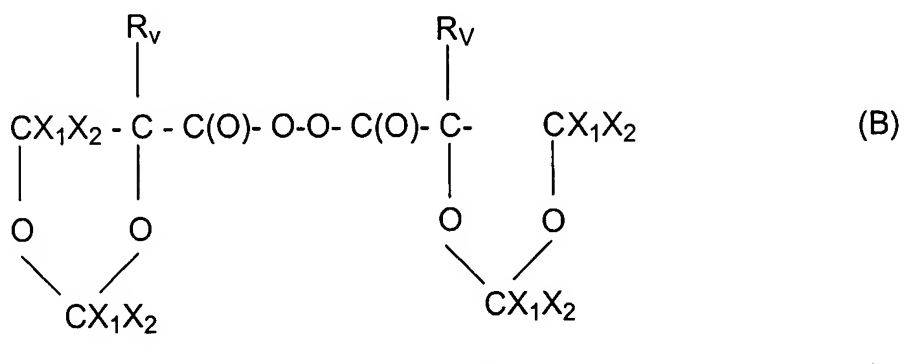
2. (Currently Amended) A polymerization process of one or more fluorinated monomers wherein ~~the~~ perfluorodiacylperoxides ~~according to claim 1~~ are used as polymerization initiators ; said perfluorodiacylperoxides having the following structures:



wherein:

when R_f is F, R_f , $R_{f''}$ are both $-CF_3$;

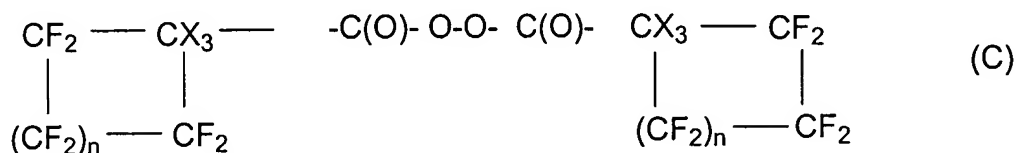
when R_f is $-CF_3$, R_f and $R_{f''}$ are C_1 - C_3 linear or branched perfluorooxyalkyl groups;



wherein:

R_y is selected from F, perfluoroalkyl, C₁-C₃ linear or branched perfluoroalkyl;

X₁, X₂ are selected from F, perfluoroalkyl, C₁-C₃ linear or branched perfluoroalkyl;



wherein:

n = 1-3

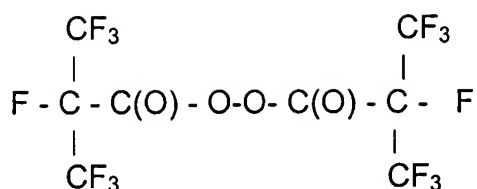
X₃ is selected from F, C₁-C₃ linear or branched perfluoroalkyl, with the proviso that for

n= 3, X₃ cannot be F;

wherein said perfluorodiacyl peroxides meet the following condition: the thermal decomposition constants K_d (sec⁻¹) in the presence of water do not undergo substantial variations with respect to the thermal decomposition constants in absence of water.

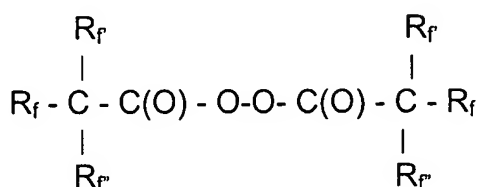
3. (Original) A polymerization process according to claim 2, wherein the polymerization is carried out in aqueous medium, in suspension, in emulsion or in microemulsion.

4. (Previously Presented) A polymerization process according to claim 2, wherein at temperatures of the order of 50° - 80°C, the perfluorodiacylperoxides of structure (C) or the compound of structure (A) having the formula:



are used.

5. (Previously Presented) A polymerization process according to claim 2, wherein at temperatures of the order of -20° - $+25^{\circ}\text{C}$, the perfluorodiacylperoxides of structure (A) of formula:



are used, wherein when R_f is $-\text{CF}_3$, R_f and R_f are C_1 - C_3 linear or branched perfluorooxyalkyl groups.

6. (Previously Presented) A polymerization process according to claim 2, wherein the fluorinated monomers are selected from:

- C_2 - C_8 perfluoroolefins;
- C_2 - C_8 hydrogenated fluoroolefins;
- C_2 - C_8 chloro-fluoroolefins;
- $\text{CF}_2=\text{CFOR}_f$ (per)fluoroalkylvinylethers (PAVE), wherein R_f is a C_1 - C_6 (per)fluoroalkyl;
- $\text{CF}_2=\text{CFOX}$ (per)fluoro-oxyalkylvinylethers, wherein X is: a C_1 - C_{12} alkyl, or a C_1 - C_{12} oxyalkyl, or a C_1 - C_{12} (per)fluorooxyalkyl having one or more ether groups;

- perfluorodioxoles;
- sulphonic monomers;
- fluorinated dienes.

7. (Previously Presented) A polymerization process according to claim 2, wherein the perfluorodiacylperoxide initiator is fed in a continuous way or by a single addition at the starting of the polymerization.

8. (Previously Presented) A polymerization process according to claim 2, wherein the amount of perfluorodiacylperoxide initiator is in the range 0.0001% - 5% by moles with respect to the amount of the fed monomers.

9. (Previously Presented) A polymerization process according to claim 6, wherein the C₂-C₈ perfluoroolefins are selected from the group consisting of tetrafluoroethylene (TFE) and hexafluoropropene (HFP).

10. (Previously Presented) A polymerization process according to claim 6, wherein the C₂-C₈ hydrogenated fluoroolefins are selected from the group consisting of vinyl fluoride (VF), vinylidene fluoride (VDF), trifluoroethylene, CH₂=CH-R_f perfluoroalkylethylene, wherein R_f is a C₁-C₆ perfluoroalkyl, and hexafluoroisobutene.

11. (Previously Presented) A polymerization process according to claim 6, wherein the C₂-C₈ chloro-fluoroolefins are chlorotrifluoroethylene (CTFE).

12. (Previously Presented) A polymerization process according to claim 6, wherein for the $\text{CF}_2=\text{CFOR}_f$ (per)fluoroalkylvinylethers (PAVE), wherein R_f is a $\text{C}_1\text{-C}_6$ (per)fluoroalkyl, the $\text{C}_1\text{-C}_6$ (per)fluoroalkyl is selected from the group consisting of CF_3 , C_2F_5 and C_3F_7 .

13. (Previously Presented) A polymerization process according to claim 6, wherein the perfluorodioxoles are selected from the group consisting of 2,2,4-trifluoro-5-trifluoromethoxy-1,3-dioxole (TTD) and 2,2-bis-trifluoromethyl-4,5-difluoro-dioxole (PPD).

14. (Previously Presented) A polymerization process according to claim 6, wherein the sulphonic monomers are $\text{CF}_2=\text{CFOCF}_2\text{CF}_2\text{SO}_2\text{F}$.

15. (Previously Presented) A polymerization process according to claim 6, wherein the fluorinated dienes are selected from the group consisting of $\text{CF}_2=\text{CFOCF}_2\text{CF}_2\text{CF}=\text{CF}_2$, $\text{CF}_2=\text{CFOCCl}_2\text{CF}_2\text{CF}=\text{CF}_2$, $\text{CF}_2=\text{CFOCF}_2\text{OCF}=\text{CF}_2$, $\text{CF}_2=\text{CFOCF}_2\text{OCCl}=\text{CF}_2$, and $\text{CF}_2=\text{CFOC}(\text{CF}_3)_2\text{OCF}=\text{CF}_2$.